



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,536	01/26/2001	Mitsunobu Teramoto	P 276641 TGS-93-1	4903

909            7590            09/17/2002  
PILLSBURY WINTHROP, LLP  
P.O. BOX 10500  
MCLEAN, VA 22102

EXAMINER

ROCHE, LEANNA M

ART UNIT	PAPER NUMBER
1771	5

DATE MAILED: 09/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application N .	Applicant(s)	10
	09/769,536	TERAMOTO ET AL.	
	Examiner Leanna Roche	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-4 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-4 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 11) The proposed drawing correction filed on \_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.  
 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.  
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.  
 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1,2</u> .	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (JP 11-348576) in view of Peterson et al. (USPN 6329439) and Okada et al. (USPN 5728744).

Mori discloses a weather strip for automobiles comprising an extrusion-molding portion and a die-molding portion. The extrusion-molding portion may be comprised of a sponge rubber such as thermoplastic olefin elastomer (TPO). The die-molding portion has the same cross-section configuration as the extrusion-molding portion and connects the ends of the extrusion-molding portion and is comprised of thermoplastic olefin elastomer.

Mori does not specifically disclose the average cell diameter of the sponge TPO of the extrusion-molding portion. Peterson, however, is directed to the extrusion of foamable TPOs for use in weather seals which have essentially closed cells which result in improved smoothness for an improved seal against incoming air and water. The foamed TPOs of Peterson have cells with a mean diameter in the range of from about 0.01 mm to 1mm. This reads on Applicant's claimed average cell diameter range

of 30 to 70  $\mu\text{m}$ . It would have been obvious to the skilled artisan at the time this invention was made to combine the teachings of Mori and Peterson to produce a foamed TPO with cell diameters within Applicant's claimed range, motivated by the desire to produce weather seals which have smooth surfaces for improved sealing against incoming air and water.

Mori does not specifically disclose that their sponge TPO have an expansion ratio of 150 to 250%. Okada, however, is directed to the production of foamed TPO for use in forming automobile weatherstrips. Okada discloses that it is known in the art that forming foamed TPO products when the expansion ratio is 2 or more times, results in foamed products free from surface roughening which are soft to the touch and have excellent heat and weather resistance. Therefore, it would have been obvious to the skilled artisan at the time this invention was made to use a sponge TPO material with an expansion ratio within Applicant's claimed range because it is known in the art that foamed TPOs with expansion ratios of 2 or more produce smooth surfaces that are soft to the touch and heat and weather resistant.

Mori does not specifically disclose that chemical foaming was used to form the sponge TPO extrusion-molding portion. Peterson, however, discloses forming a portion of a weather seal by extruding TPO with a blowing agent to produce a foamed TPO. It would have been obvious to the skilled artisan at the time this invention was made to produce the sponge TPO portion of Mori by a chemical foaming method, motivated by the desire to produce weather seals which have smooth surfaces for improved sealing against incoming air and water. Additionally, even though product-by-process claims

are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). The sponge TPO extrusion-molding portion of Mori in view of Peterson and Okada strongly suggested the claimed subject matter.

Neither Mori, nor Peterson, nor Okada disclose the deformation tensile stress value for the sponge TPO extrusion-molding portion. However, it appears that the sponge TPO extrusion-molding portion of Mori in view of Peterson and Okada is substantially identical to the presently claimed foamed thermoplastic olefin elastomer. Thus, it is believed by the examiner that the sponge TPO extrusion-molding portion of Mori in view of Peterson and Okada inherently possesses a deformation tensile stress within Applicant's presently claimed ranges. Additionally, the presently claimed deformation tensile stress would have obviously been present once the sponge TPO extrusion-molding portion of Mori in view of Peterson and Okada was provided.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (JP 11-348576) in view of Peterson et al. (USPN 6329439) and Okada et al. (USPN

5728744) as applied to claim 1 above, and further in view of Kato et al. (USPN 5992928).

Mori does not specifically disclose the hardness of the TPO die-molding portion. Kato, however, discloses a TPO molding portion of a weather strip wherein the preferred hardness for the molding portion is within the range 20 to 80. Kato also discloses that hardness values in this range produce good moldability, good strength and good absorption of expansion and contraction forces. Therefore, it would have been obvious to the skilled artisan at the time this invention was made to use a die-molding portion with a hardness within Applicant's claimed range, motivated by the desire to produce a weather strip with good moldability, good strength and good absorption of expansion and contraction forces. Additionally, it would have been obvious to the skilled artisan at the time this invention was made to use a die-molding portion with a hardness within Applicant's claimed range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See *In re Aller*, 105 USPQ 233.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leanna Roche whose telephone number is 703-308-6549. The examiner can normally be reached on Monday through Friday from 8:30 am to 6:00 pm (with alternate Mondays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



lmr  
September 11, 2002



TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700